REMARKS/ARGUMENTS

Favorable reconsideration of the present application is respectfully requested.

The claims have been amended to further recite the step of controlling the plasma to remove the coating to a desired depth. Basis for this is found at, e.g., page 10, line 24 to page 11, line 7. Thus, some or all of the depth of a coating can be removed. Claim 69 has also been amended for clarity, as explained below.

Claims 40 and 67, as well as Claims 36, 44, 49, 50 and 68, were newly rejected under 35 U.S.C. §103 as being obvious over Fornsel in view of Babko-Malyi, wherein Babko-Malyi was cited to teach that slit shaped nozzles were known. The Office Action there particularly relied on the description at lines 22-27 in col. 5 of Fornsel (i.e., that "the location and size of the surface area to be treated, as well as the intensity of the plasma treatment can be controlled precisely by adjusting the position of the workpiece 35 in relation to the jet generator 10 as required") for a teaching that the direction of elongation of a slit shaped nozzle has a certain orientation direction to thereby remove a coating over a width/area determined by an angle of the certain orientation of the slit shaped nozzle relative to the direction of the relative movement.

However, a closer review of Fornsel makes clear that one skilled in the art would understand this description to mean only that one should adjust the *spacing* between the head 40 and the surface to be treated – **not** that the plasma treatment width/area should be controlled by adjusting the orientation of the head 40 relative to the moving direction A. More particularly, lines 20-23 of col. 5 in Fornsel describe that the plasma jet originates from a point source. As shown in Fig. 1, this jet expands in a direction away from the opening 24. Therefore, its size and intensity at the position of the workpiece are a function of the spacing of the workpiece from the point source.

Even more particularly, Fornsel describes the manner in which the width of the area to be treated in the direction perpendicular to the moving direction A is adjusted: by turning jet generators on or off (col. 5, lines 51-53) -- not by adjusting the orientation of the head 40 relative to the moving direction A.

Therefore, regardless of the shape of the openings 24 in Fornsel, i.e., slit shaped (as in Babko-Malyi) or not, there is no teaching in the cited prior art that the width/area by which a coating is removed by a plasma should be determined by an angle of orientation of the nozzle relative to its direction of movement. It is therefore respectfully submitted that there is no factual basis in this art from which to conclude that this would have been obvious at the time of invention.

Concerning Claim 68, it was the position of the Office Action that pivoting the row of nozzles about an axis perpendicular to the substrate in the region of a corner of the substrate would have been obvious as one of a small finite number of ways that the nozzle could be moved at the corner. However, addressing the problem of removing a coating at a corner actually could be handled in an infinite number of ways, including moving the nozzles along an infinite combination of paths involving translations and rotations of the nozzles about the X-Y-Z axes. Thus, the selection of the claimed step from among this infinite number of possible steps only appears obvious in the light of hindsight.

Applicants also note the conclusion in the Office Action that the invention is simply the product of "common sense" and is analogous to controlling the width and adequacy of watering coverage of a lawn or garden using a perforated hose, or water sprinkler having a row of nozzles, by adjusting the angle of the hose or sprinkler while carrying the hose or sprinkler and walking in a certain direction. Assuming that the examiner is taking "Official Notice" that this is a known way of watering a lawn or garden in a controlled fashion, it is

respectfully requested that the examiner so state, and identify this as a new ground of rejection.

Assuming this to be the case, Applicants first note in response that watering a lawn or garden is not analogous prior art to removing a coating using a plasma. The standard for determining analogous prior art in a different field of endeavor is whether the different field of endeavor, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his or her invention as a whole. MPEP 2141.01(a). In this case, removing a coating using a plasma requires precise control of the coverage area and intensity of the plasma to remove only the desired portion of the coating. Other technologies that logically would have commended themselves to an inventor's attention would be those in which similarly require precise control of coverage area and intensity. Watering a lawn or garden, on the other hand, only requires generally adequate coverage for a desired general region.

Applicants also challenge the factual basis for any "Official Notice" that it was known in the art to attempt precise area and quantity control of the watering of a lawn or garden by walking while holding a perforated hose or water sprinkler at a certain set angle. Instead, common sense dictates that any attempt at area and quantity control would be done after reaching a desired location and placing the hose or sprinkler on the ground.

Finally, Applicants note that the claims now recite the step of "controlling the plasma to remove the coating to a desired depth." It is respectfully submitted that common sense dictates that one walking while holding a perforated hose or water sprinkler would not attempt water treatment quantity control, e.g., watering to a desired degree, while holding the hose or sprinkler in this way, but would wait until the hose or sprinkler is placed on the ground.

Claim 69 was rejected under 35 U.S.C. §103 as being obvious over Fornsel in view of Babko-Malyi, and further in view of U.S. patent 7,179,397 (Siniaguine) which was cited to teach varying the angle of the plasma jet relative to the coating to be removed.

It appears that this rejection is the result of a misunderstanding of the claim. It is Applicants' understanding that Siniaguine was cited to teach pivoting or tilting the axis of the plasma jet relative to the coating to be removed, i.e., away from the perpendicular. In fact, Claim 69 merely recites changing the angle of the slit shaped nozzle by rotation about the axis perpendicular to the substrate – the angle of the axis is not changed. In order to clarify this, Claim 69 has been amended to recite pivoting the slit shaped nozzle to another rotational angle about the axis of rotation that is perpendicular to the substrate.

Therefore, it appears that the rejection of Claim 69 should also have been one based on Fornsel in view of Babko-Malyi. Claim 69 defines over this prior art for the reason noted above: there is no teaching in the cited prior art that the width/area by which a coating is removed by a plasma should be determined by an angle of orientation of the nozzle relative to its direction of relative movement.

Dependent Claim 47 was rejected under 35 U.S.C. §103 as being obvious over Fornsel in view of Babko-Malyi, and further in view of U.S. patent publication 2002/00808082 (Tanaka et al) which was cited to teach a discharge device. However, Tanaka et al does not overcome the aforementioned shortcomings of Fornsel in view of Babko-Malyi with respect to Claim 68, and so the claims define over any of this prior art.

Applicants therefore believe that the present application is in a condition for allowance and respectfully solicit an early notice of allowability.

Respectfully submitted,

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